

WHAT IS CLAIMED IS:

1. Engineered tissue comprising a suspension of anticoagulated plasma, a clotting agent and cells.
2. An engineered tissue as described in claim 1, wherein the cells are stem cells.
3. An engineered tissue as described in claim 2, wherein the stem cells are committed stem cells.
4. An engineered tissue as described in claim 2, wherein the suspension further comprises differentiation inducers.
5. An engineered tissue described in claim 1, wherein the engineered tissue has a predetermined shape and the suspension has substantially the same predetermined shape.
6. A method of manufacturing an engineered tissue comprising mixing cells with anticoagulated plasma and a clotting agent to form a suspension.
7. The method described in claim 6, wherein the cells are stem cells.
8. The method described in claim 7, wherein the stem cells are committed stem cells.
9. The method described in claim 7, wherein the step of mixing cells with anticoagulated plasma and a clotting agent further comprises mixing in differentiation inducers.
10. The method described in claim 7, further comprising the preliminary step of providing a mold defining a predetermined shape and then mixing the suspension inside the mold.
11. An extracellular matrix for promoting cell growth comprising a suspension of anticoagulated plasma and a clotting agent.
12. An extracellular matrix as described in claim 11, wherein the suspension further comprises preselected DNA.

13. A method of manufacturing an extracellular matrix for promoting cell growth comprising mixing anticoagulated plasma and a clotting agent to form a suspension.

14. A method of manufacturing an extracellular matrix having a predetermined shape, the method comprising:

preselecting a mold adapted to make the predetermined shape, and

filling the mold with a mixture of anticoagulated plasma, a clotting agent and cells.

15. A method for testing the effectiveness of cancer therapy treatments *in vitro* comprising:

manufacturing engineered tissue comprising anticoagulated plasma, a clotting agent and cancer cells;

preparing a plurality of samples of the engineered tissue;

subjecting a plurality of cancer therapy treatments to a respective plurality of samples of engineered tissue; and

evaluating the relative effectiveness of the cancer therapy treatment agents.

16. The method as described in claim 15, wherein the cancer cells are obtained from a patient who is in need of cancer therapy treatments.

17. An engineered tissue as described in claim 1, further comprising preselected DNA.

18. An engineered tissue as described in claim 17, wherein the preselected DNA is incorporated into the cells.

19. An engineered tissue as described in claim 18, wherein the preselected DNA is incorporated into the cells by using nonviral techniques.

20. The method described in claim 6 further comprising the step of adding sufficient fibrinolytic inhibitors at the time of mixture to prevent degradation of the resulting fibrin matrix before about two days.

21. The method described in claim 6, wherein the anticoagulated plasma contains a sufficient concentration of anticoagulates to prevent the resulting fibrin matrix formation from being complete until more than ten seconds after the mixture of anticoagulated plasma, clotting agent, and cells.

22. The method described in claim 6, further wherein the clotting agents have a low enough concentration to prevent the resulting fibrin matrix formation from being complete until more than ten seconds after the mixture of anticoagulated plasma, clotting agent, and cells.

2025 RELEASE UNDER E.O. 14176